

What claimed is:

1. A loudspeaker enclosure, including means to transmit structure born sound to a support surface, further including means for altering the listening axis from the loudspeaker to the listener for optimum directional sound quality, said loudspeaker enclosure comprising:

bottom wall means comprising means to transfer structure-born vibrational energy from said enclosure to said support surface;

front wall means which define, together with said bottom wall means and a plurality of walls, an enclosure;

said front wall means including an adjustable baffle board with at least one opening for mounting a loudspeaker transducer,

said adjustable baffle board having an infinite plurality of angular positions relative to said bottom wall means or relative to one wall of said plurality of walls, and said adjustable baffle board defining in an initial position a vertical plane relative to said bottom wall means and relative to said one wall,

pivot means supporting said adjustable baffle board for a predetermined range of swivel movement relative to said vertical plane through predetermined angles about a predetermined axis located within or at predetermined distance rearwardly from said vertical plane, and

means for locking said adjustable baffle board in an infinite plurality of

fixed angular positions relative to said vertical plane within said predetermined range of swivel movement,

whereby the orientation of the baffle board can be adjusted to change the listening axis of the loudspeaker (i.e., a line from the center of the loudspeaker to the center of the listener's head at ear level) without cutting off the transmission of structure-borne sound from the cabinet to the support surface.

2. The loudspeaker enclosure of claim 1, wherein

said bottom wall means defining a parallel plane relative to the support surface, thereby providing a contact surface to transfer said structure-borne vibrational energy from the enclosure to the support surface.

3. The loudspeaker enclosure of claim 1, wherein

said bottom wall means including a plurality of support members, said support members defining a plurality of contact members to transfer said structure-borne vibrational energy from the enclosure to the support surface.

4. The loudspeaker enclosure of claim 1, wherein

two walls of said plurality of walls defining the enclosure or one wall of said plurality of walls and said bottom wall means together define a pair of parallel enclosure walls.

5. The loudspeaker enclosure of claim 4, wherein

said pivot means comprising a pair of metal rods, said rods being mounted into said pair of parallel enclosure walls, and

said adjustable baffle board further comprising a handle for easy adjustment, and

said adjustable baffle board further comprising a plurality of additional wall members attached vertically thereto, said additional wall members being adapted to maintain airtightness of the enclosure when the baffle board is being moved out of its initial position for adjustment, and

two of said additional wall members defining a pair of parallel baffle board walls, said parallel baffle board walls sliding adjacent along said pair of parallel enclosure walls during adjustment of said baffle board, and

said means for locking said adjustable baffle board in said infinite plurality of fixed angular positions comprising a pair of tightening screws, said tightening screws being supportedly mounted in said parallel enclosure walls to put pressure upon said adjacent parallel

baffle board walls for locking the baffle board in a predetermined angular position.

6. The loudspeaker enclosure of claim 4, wherein

said adjustable baffle board further comprising a plurality of additional wall members mounted vertically thereto, said additional wall members in conjunction with the adjustable baffle board defining an open subcabinet having at least one pair of parallel subcabinet walls,

said parallel subcabinet walls being acoustically coupled to said parallel enclosure walls with contact members, said contact members transferring structure-born vibrational energy from the subcabinet to the enclosure, and

said pivot means comprising a pair of bolts supporting said subcabinet, said bolts being mounted into said pair of parallel enclosure walls, and

said means for locking said adjustable baffle board in said infinite plurality of fixed angular positions comprising a pair of locknuts and washers, said locknuts matching said bolts and being mounted thereon from within the cavity defined by the open subcabinet,

whereby the subcabinet can be fixed to the enclosure via said contact members by tightening the locknuts to the bolts, thereby locking the baffle board in a predetermined angular position.

7. The loudspeaker enclosure of claim 4, wherein

said adjustable baffle board further comprising a plurality of additional wall members, said additional wall members in conjunction with the adjustable baffle board defining a subcabinet having at least one pair of parallel subcabinet walls,

said parallel subcabinet walls being acoustically coupled to said parallel enclosure walls with contact members, said contact members transferring structure-born vibrational energy from the subcabinet to the enclosure, and

said pivot means comprising a pair of bolts supporting said subcabinet, said bolts being supportedly mounted into said pair of parallel enclosure walls, and

said means for locking said adjustable baffle board in said infinite plurality of fixed angular positions comprising said bolts and a pair of locknuts, said locknuts matching said bolts and being mounted in the parallel subcabinet walls in a fixed positions,

whereby the baffle board can be locked in a predetermined angular position by tightening the supportedly mounted bolts within the enclosure walls to the fixed nuts within the subcabinet walls.

8. The loudspeaker enclosure of claim 4, wherein

said pivot means comprising a pair of metal rods, said rods being mounted into said pair of parallel enclosure walls, and

said adjustable baffle board further comprising a handle for easy adjustment, and

said adjustable baffle board further comprising a pair of metal fittings being vertically attached to the baffle board, said metal fittings sliding parallel along said parallel enclosure walls during adjustment of said baffle board and said fittings having slots and grooves along their length and being bow-shaped, and

said means for locking said adjustable baffle board in an infinite plurality of fixed angular positions comprising a pair of bolts being mounted in said parallel enclosure walls, further comprising corresponding rectangular locknuts, said rectangular locknuts sliding within said grooves of said metal fittings and said bolts being attached through said slots in said fittings and being fixed to said rectangular locknuts, thereby fixing the metal fittings to the enclosure and locking the baffle board in a predetermined angular position.

9. The loudspeaker enclosure of claim 8, wherein

said adjustable baffle board having one edge opposite to its supporting axis, said edge sliding along an arched plane within the enclosure during adjustment of the adjustable baffle board,

said arched plane being mounted in the top part of said enclosure to maintain air tightness of the enclosure when said adjustable baffle board is moved out of its initial position,

10. A loudspeaker enclosure, including means to transmit structure born sound to a support surface, further including means for altering the listening axis from the loudspeaker to the listener for optimum directional sound quality, said loudspeaker enclosure comprising:

bottom wall means comprising means to transfer structure-born vibrational energy from said enclosure to said support surface;

front wall means which define, together with said bottom wall means and a plurality of walls, an enclosure;

said front wall means including an adjustable baffle board with at least one opening for mounting a loudspeaker transducer,

said adjustable baffle board having an infinite plurality of angular positions relative to said bottom wall means or relative to one wall of said plurality of walls, and said adjustable baffle board defining

in an initial position a vertical plane relative to said bottom wall means and relative to said one wall,

pivot means supporting said adjustable baffle board for a predetermined range of swivel movement relative to said vertical plane through predetermined angles about a predetermined axis located within or at predetermined distance rearwardly from said vertical plane, and

means for locking said adjustable baffle board in an infinite plurality of fixed angular positions relative to said vertical plane within said predetermined range of swivel movement, and

means for housing an electronic circuit for audio amplification, comprising a metall chassis, said metal chassis being mounted into the enclosure, supporting audio amplifier control means, said control means being located within or near said vertical plane,

whereby the orientation of the baffle board can be adjusted to change the listening axis of the loudspeaker (i.e., a line from the center of the loudspeaker to the center of the listener's head at ear level) without cutting off the transmission of structure-born sound from the cabinet to the support surface.

11. The loudspeaker enclosure of claim 10, wherein



said bottom wall means defining a parallel plane relative to the support surface, thereby providing a contact surface to transfer said structure-born vibrational energy from the enclosure to the support surface.

12. The loudspeaker enclosure of claim 10, wherein

said bottom wall means including a plurality of support members, said support members defining a plurality of contact members to transfer said structure-born vibrational energy from the enclosure to the support surface.

13. The loudspeaker enclosure of claim 10, wherein

two walls of said plurality of walls defining the enclosure or one wall of said plurality of walls and said bottom wall means together define a pair of parallel enclosure walls.

14. The loudspeaker enclosure of claim 13, wherein

said pivot means comprising a pair of metal rods, said rods being mounted into said pair of parallel enclosure walls, and

said adjustable baffle board further comprising a handle for easy adjustment, and

said adjustable baffle board further comprising a plurality of additional wall members attached vertically thereto, said additional wall members being adapted to maintain airtightness of the enclosure when the baffle board is being moved out of its initial position for adjustment, and

two of said additional wall members defining a pair of parallel baffle board walls, said parallel baffle board walls sliding adjacent along said pair of parallel enclosure walls during adjustment of said baffle board, and

said means for locking said adjustable baffle board in said infinite plurality of fixed angular positions comprising a pair of tightening screws, said tightening screws being supportedly mounted in said parallel enclosure walls to put pressure upon said adjacent parallel baffle board walls for locking the baffle board in a predetermined angular position.

15. The loudspeaker enclosure of claim 13, wherein

said adjustable baffle board further comprising a plurality of additional wall members mounted vertically thereto, said additional wall members in conjunction with the adjustable baffle board defining an open subcabinet having at least one pair of parallel subcabinet walls,

said parallel subcabinet walls being acoustically coupled to said parallel enclosure walls with contact members, said contact members transferring structure-born vibrational energy from the subcabinet to the enclosure, and

said pivot means comprising a pair of bolts supporting said subcabinet, said bolts being mounted into said pair of parallel enclosure walls, and

said means for locking said adjustable baffle board in said infinite plurality of fixed angular positions comprising a pair of locknuts and washers, said locknuts matching said bolts and being mounted thereon from within the cavity defined by the open subcabinet,

whereby the subcabinet can be fixed to the enclosure via said contact members by tightening the locknuts to the bolts, thereby locking the baffle board in a predetermined angular position.

16. The loudspeaker enclosure of claim 13, wherein

said adjustable baffle board further comprising a plurality of additional wall members, said additional wall members in conjunction with the adjustable baffle board defining a subcabinet having at least one pair of parallel subcabinet walls,

said parallel subcabinet walls being acoustically coupled to said parallel enclosure walls with contact members, said contact

members transferring structure-born vibrational energy from the subcabinet to the enclosure, and

said pivot means comprising a pair of bolts supporting said subcabinet, said bolts being supportedly mounted into said pair of parallel enclosure walls, and

said means for locking said adjustable baffle board in said infinite plurality of fixed angular positions comprising said bolts and a pair of locknuts, said locknuts matching said bolts and being mounted in the parallel subcabinet walls in a fixed positions,

whereby the baffle board can be locked in a predetermined angular position by tightening the supportedly mounted bolts within the enclosure walls to the fixed nuts within the subcabinet walls.

17. The loudspeaker enclosure of claim 13, wherein

said pivot means comprising a pair of metal rods, said rods being mounted into said pair of parallel enclosure walls, and

said adjustable baffle board further comprising a handle for easy adjustment, and

said adjustable baffle board further comprising a pair of metal fittings being vertically attached to the baffle board, said metal fittings sliding parallel along said parallel enclosure walls during

adjustment of said baffle board and said fittings having slots and grooves along their length and being bow-shaped, and

said means for locking said adjustable baffle board in an infinite plurality of fixed angular positions comprising a pair of bolts being mounted in said parallel enclosure walls, further comprising corresponding rectangular locknuts, said rectangular locknuts sliding within said grooves of said metal fittings and said bolts being attached through said slots in said fittings and being fixed to said rectangular locknuts, thereby fixing the metal fittings to the enclosure and locking the baffle board in a predetermined angular position.

18. The loudspeaker enclosure of claim 17, wherein

said adjustable baffle board having one edge opposite to its supporting axis, said edge sliding along an arched plane within the enclosure during adjustment of the adjustable baffle board,

said arched plane being mounted in the top part of said enclosure to maintain air tightness of the enclosure when said adjustable baffle board is moved out of its initial position.